### **Navy Advancement Center**

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# Advancement Handbook for Aviation Structural Mechanic (AM)

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### **PREFACE**

The purpose of the Advancement Handbook is to help you focus your preparation for Navywide advancement-in-rating examinations. The bibliographies (BIBs), together with this Handbook, form a comprehensive examination study package. This Handbook provides skill and knowledge components for each paygrade of the Aviation Structural Mechanic (AM) rating, and it will help you concentrate your study on those areas that may be tested. This feature will help you get the most out of your study time.

Each page in Parts 1 through 4 of this Advancement Handbook presents general skill areas, specific skill areas, the knowledge factors associated with each skill area, the pertinent references that address each skill, and the subject areas that may be covered on the examination. The skill statements describe the skills you are expected to perform for each paygrade. The skill statements are <u>cumulative</u>; that is, you are responsible for the skills for the paygrade you are competing for, your present paygrade, and all paygrades below.

Although this Handbook is very comprehensive, it cannot cover all the tasks performed in the rating. As a result, the advancement examinations may contain questions more detailed than described in the "*Exam Expectations*" section of the skill areas.

Remember that advancement competition is keen, so your keys to advancement include not only comprehensive advancement examination study but also sustained superior performance.

Prepared by Navy Advancement Center Department, Naval Education and Training Professional Development and Technology Center

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### Part 1

General AM <i>Skill Area</i>	MAINTENANCE OF HELICOPTER ROTOR BRAKES SYSTEMS
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maintain Rotor Brakes Systems
Knowledge you should have to perform this skill:	<ul> <li>Operation of helicopter rotor brake systems</li> <li>Inspecting and troubleshooting rotor brake systems and related components</li> <li>Removal and replacement of rotor brakes assembly and related components</li> <li>Repairing and overhauling of rotor brakes assembly and related components (I-level)</li> <li>Bench-checking components of rotor brakes assemblies and related components (I-level)</li> <li>Hydraulic patch test checking and aircraft hydraulic servicing of the rotor brakes hydraulic system</li> <li>Applying electrical power to aircraft</li> <li>Functional check procedures for rotor brakes system</li> <li>Corrosion detection, prevention, and preservations of the rotor brakes and related components</li> </ul>
References you should study to gain the knowledge you need to perform this skill:	<ul> <li>Aviation Structural Mechanic (H&amp;S) 3 &amp; 2, Chapter 10 (NAVEDTRA 14018)</li> <li>Aviation Maintenance Ratings, Chapter 5 (NAVEDTRA 14022)</li> <li>Basic Handling &amp; Safety Manual, Work Package 10 (NAVAIR 00-80T-96)</li> <li>Aviation Hydraulics Manual, Chapters 3, 6, 8, and 9 (NAVAIR 01-1A-17)</li> <li>Hose and Tube Manual, Chapters 2, 4, 6, 7, and 9 (NAVAIR 01-1A-20)</li> </ul>

	<ul> <li>Aircraft Weapons Systems Cleaning and Corrosion Control, Chapters 2-6 and 8 (NAVAIR 01-1A-509)</li> <li>All applicable NAVAIR Maintenance Instruction Manuals</li> <li>All applicable activity's instructions and standard operating procedures</li> </ul>
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the operations and functions of any of the helicopter rotor brakes systems, the inspection types and techniques, troubleshooting, and component repair or overhaul procedures. You can also expect questions on general maintenance, performing operational check, and servicing of helicopter rotor brakes system. You can expect questions on corrosion identification, prevention, and preservation of components during corrosion inspection. These questions maybe of a general nature or specific to a type of helicopter rotor brakes system.

General AM <i>Skill Area</i>	FLIGHT CONTROL SYSTEM ROTARY
A <i>skill</i> you are expected to perform from the General Skill Area above:	Inspect, maintain, and service main flight control systems
Knowledge you should have to perform this skill:	<ul> <li>Operation of helicopter flight control systems</li> <li>Inspecting and troubleshooting of helicopter flight control systems and related components</li> <li>Removing and replacing helicopter flight control components and related parts</li> <li>Repairing, overhauling, and testing of related hydraulic components</li> <li>Testing and troubleshooting of AFCS systems</li> <li>Removal, repair, and replacement of AFCS components</li> <li>Rigging and adjusting helicopter flight control systems and components</li> <li>Performing corrosion detection, treatment, and prevention on helicopter flight control systems and related components</li> </ul>
References you should study to gain the knowledge you need to perform this skill:	<ul> <li>Aviation Structural Mechanic (H&amp;S) 3&amp;2, Chapter 10 (NAVEDTRA 14018)</li> <li>Aviation Maintenance Ratings, Chapters 4, 5, and 6 (NAVEDTRA 14022)</li> <li>Aviation Hydraulics Manual, Chapters 3, 6, 8, and 9 (NAVAIR 01-1A-17)</li> <li>Hose and Tubing Manual, Chapters 2, 4, 6, 7, and 9 (NAVAIR 01-1A-20)</li> <li>Aircraft Weapons Systems Cleaning and</li> </ul>

Corrosion Control, Chapters 2, 3, 4, 5, 6, and 8 (NAVAIR 01-1A-509) • Basic Handling & Safety Manual, Work Package 10 (NAVAIR 00-80T-96) • Naval Aviation Maintenance Program, Volume 5 (OPNAVINST 4790.2) • All applicable NAVAIR Maintenance **Instruction Manuals** • All applicable activity's instructions and standard operating procedures Exam Expectations. These You can expect questions about the types, are subject areas you operations, and functions of any of the should know to help you helicopter flight control systems. You can also answer exam questions expect questions about inspection types, testing, troubleshooting, and removal and correctly: replacement of different components of the helicopter flight control systems. You may also see questions regarding rigging, adjusting, aligning, and servicing helicopter flight control systems. In addition, you may see questions relating to corrosion identification, prevention, and treatment. These questions maybe of a general nature or specific to a particular helicopter flight control system.

General AM <i>Skill Area</i>	FLIGHT CONTROL SYSTEMS MAINTENANCE
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maintain Fixed Wing Aircraft Flight Control Systems
Knowledge you should have to perform this skill:	<ul> <li>Operation of flight control systems</li> <li>Identifying types of flight control systems</li> <li>Inspecting and test of flight control systems</li> <li>Troubleshooting flight control systems</li> <li>Removing and replacing components of flight control systems</li> <li>Rigging of flight control systems</li> <li>Adjusting and aligning of flight control systems</li> <li>Hydraulics contamination checking and servicing of flight control systems</li> <li>Corrosion detection, prevention and preservation of fixed wing flight control systems</li> </ul>
References you should study to gain the knowledge you need to perform this skill:	<ul> <li>Aviation Structural Mechanic (H&amp;S) 3 &amp; 2, Chapters 1 and 9 (NAVEDTRA 14018)</li> <li>Aviation Maintenance Ratings, Chapters 4 and 5 (NAVEDTRA 14022)</li> <li>General Manual for Structural Repair, Chapters 2, 4, and 9 (NAVAIR 01-1A-1)</li> <li>Structural Hardware Manual, Chapters 2 and 13 (NAVAIR 01-1A-8)</li> <li>Aviation Hydraulics Manual, Chapters 3, 6, 8, and 9 (NAVAIR 01-1A-17)</li> <li>Aircraft Weapons Systems Cleaning and Corrosion Control, Chapters 2-6 and 8 (NAVAIR 01-1A-509)</li> <li>All applicable NAVAIR Maintenance Instruction Manuals</li> </ul>

	All applicable activity's instructions and standard operating procedures
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the different types of flight controls, and their operations and functions on fixed-wing aircraft. These questions may include performing scheduled and non-scheduled inspections, testing, and troubleshooting of flight control systems. You can also expect questions on repairing, removing, replacing, rigging, adjusting, and aligning of flight control systems, as well as performing hydraulics contamination checks and servicing of flight control systems. You will need to know about corrosion identification, prevention, and preservation of components during inspection. These questions maybe of a general nature or specific to a type of flight control system.

General AM <i>Skill Area</i>	FLIGHT CONTROL SURFACES AND FLIGHT CONTROL CABLE MAINTENANCE
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maintain and repair Fixed Wing Aircraft Flight Control Surfaces and Control Cables
Knowledge you should have to perform this skill:	<ul> <li>Operation of flight control surfaces and control cables</li> <li>Identifying the functions of flight control surfaces and control cables</li> <li>Inspecting and testing flight control surfaces and control cables</li> <li>Troubleshooting flight control surfaces and control cables</li> <li>Removing and replacing components and related system of flight control surfaces</li> <li>Damage assessment to flight control surfaces</li> <li>Materials and hardware identification used on different flight control surfaces and control cables</li> <li>Use of special tools/kits in repairs and maintenance of flight control surfaces and control cables</li> <li>Repair procedures of different flight control surfaces and control cables</li> <li>Fabrications of flight control cables (I-level)</li> <li>Rigging flight control surfaces and control cables</li> <li>Adjusting and aligning flight control surfaces and control cables</li> <li>Functional check procedures for flight control surfaces and control cables</li> <li>Applying electrical power to aircraft</li> <li>Corrosion detection, prevention, and preservation of fixed-wing flight control surfaces and flight control cables</li> </ul>

References you should study to gain the knowledge you need to perform this skill:

- Aviation Structural Mechanic (H&S) 3 & 2, Chapters 1 and 9 (NAVEDTRA 14018)
- Aviation Maintenance Ratings, Chapter 4 (NAVEDTRA 14022)
- Basic Handling & Safety Manual, Work Package 10 (NAVAIR 00-80T-96)
- General Manual for Structural Repair, Chapters 2-9 (NAVAIR 01-1A-1)
- Structural Hardware Manual, Chapters 2-5, and 7-9 (NAVAIR 01-1A-8)
- Aerospace Metals–General Data and Usage Factors, Chapters 2 and 3 (NAVAIR 01-1A-9)
- Aircraft Weapons Systems Cleaning and Corrosion Control, Chapters 2-6 and 8 (NAVAIR 01-1A-509)
- All applicable NAVAIR Maintenance Instruction Manuals
- All applicable activity's instructions and standard operating procedures

Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:

You can expect questions about the operations and functions of each type of flight control surfaces and control cables, as well as inspection techniques, testing, troubleshooting, and removal and installation of flight control surfaces. You can also expect questions on fabrications of flight control cables. You will need to know how to assess damages, type of damages, and repair procedures. Questions may also cover functional check procedures, corrosion identification, prevention, and preservation of flight control surfaces, cables, and related components. These questions maybe of a general nature or specific to a type of flight control surface or flight control cable.

General AM <i>Skill Area</i>	NOSE GEAR STEERING SYSTEMS MAINTENANCE
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maintain Nose Gear Steering Systems
Knowledge you should have to perform this skill:	<ul> <li>Operation of nose gear steering system</li> <li>Inspecting and testing nose gear steering system</li> <li>Removing and replacing nose gear steering components and related systems</li> <li>Repairing and overhauling of nose gear steering system components (I-level)</li> <li>Bench-checking nose gear steering components (I-level)</li> <li>Rigging nose gear steering systems</li> <li>Adjusting and aligning nose gear steering systems</li> <li>Servicing nose gear steering systems</li> <li>Performing hydraulics patch test</li> <li>Functional check procedures for nose gear steering systems</li> <li>Applying electrical power to aircraft</li> <li>Corrosion detection, prevention, and preservation of the nose steering gear systems</li> </ul>
References you should study to gain the knowledge you need to perform this skill:	<ul> <li>Aviation Structural Mechanic (H&amp;S) 3 &amp; 2, Chapters 1 and 12 (NAVEDTRA 14018)</li> <li>Basic Handling &amp; Safety Manual, Work Package 10 (NAVAIR 00-80T-96)</li> <li>Aviation Hydraulics Manual, Chapters 3, 6, 8, and 9 (NAVAIR 01-1A-17)</li> <li>Hose and Tube Manual, Chapters 2, 4, 6, 7, and 9 (NAVAIR 01-1A-20)</li> </ul>

You can expect questions about the operation on any of the nose gear steering systems and related components. The questions my include inspection types, testing, troubleshooting, removal, and replacements of different components. You can also expect questions about rigging, adjustments, alignments, and hydraulics servicing and patch test samples of the nose gear steering systems, as well as corrosion identification, prevention and preservation of components. These questions maybe of a general nature or specific to a type of nose gear steering system.

General AM <i>Skill Area</i>	LANDING GEAR SYSTEMS MAINTENANCE
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maintain main and nose landing gear systems
Knowledge you should have to perform this skill:	<ul> <li>Operation of main, nose, and tail landing gear systems</li> <li>Troubleshooting main, nose and tail landing gear systems</li> <li>Removing and replacing main, nose, and tail landing gear and related components</li> <li>Adjusting and aligning main landing gear systems</li> <li>Adjusting and aligning nose landing gear systems</li> <li>Adjusting and aligning tail landing gear systems</li> <li>Rigging of main, nose, and tail landing gear systems</li> <li>Servicing hydraulics main, nose, and tail landing gear systems</li> <li>Servicing pneumatics main and nose landing gear systems</li> <li>Corrosion detection, prevention, and preservation of main and nose landing gear systems</li> <li>Applying electrical power to aircraft</li> <li>Applying hydraulic power to aircraft</li> </ul>

References you should study to gain the knowledge you need to perform this skill:

- Aviation Structural Mechanic (H&S) 3 & 2, Chapters 2-8 and 12 (NAVEDTRA 14018)
- Aviation Maintenance Ratings, Chapter 5 (NAVEDTRA 14022)
- Basic Handling & Safety Manual, Work Package 10 (NAVAIR 00-80T-96)
- Aviation Hydraulics Manual, Chapters 3, 6, 8 and 9 (NAVAIR 01-1A-17)
- Hose and Tube Manual, Chapters 2, 4, 6, 7 and 9 (NAVAIR 01-1A-20)
- All applicable NAVAIR Maintenance Instruction Manuals
- All applicable activity's instructions and standard operating procedures

Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:

You can expect questions about the operations on any of the main and nose landing gears systems and related components. These questions may include troubleshooting, removal and replacement of different components, rigging, adjustments and alignments, hydraulics and pneumatic servicing of the systems, and support equipment operation procedures. These questions maybe of a general nature or specific to a type of landing gear system.

General AM <i>Skill Area</i>	AIRCRAFT BRAKE SYSTEMS MAINTENANCE
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maintain aircraft brake systems
Knowledge you should have to perform this skill:	<ul> <li>Operation of aircraft brake systems</li> <li>Identifying types of brake systems and different brake assemblies</li> <li>Troubleshooting brake systems</li> <li>Aircraft jacking procedures</li> <li>Removing and replacing brake assembly and related components</li> <li>Identifying materials and hardware used on different brake assemblies</li> <li>Repair procedures (I-level) of different types of brake assemblies</li> <li>Bench Check (I-level) procedures of different types of brake assemblies</li> <li>Adjusting and aligning brakes on aircraft</li> <li>Servicing hydraulics</li> <li>Applying hydraulic power</li> <li>Applying electrical power</li> <li>Corrosion detection, prevention, and preservations of aircraft brake assemblies</li> </ul>
References you should study to gain the knowledge you need to perform this skill:	<ul> <li>Aviation Structural Mechanic (H&amp;S) 3 &amp; 2, Chapters 2, 4, 7, and 12 (NAVEDTRA 14018)</li> <li>Aviation Maintenance Ratings, Chapters 4 and 5 (NAVEDTRA 14022)</li> <li>Basic Handling &amp; Safety Manual, Work Package 10 (NAVAIR 00-80T-96)</li> <li>Structural Hardware Manual, Chapters 2-5 and 7-9 (NAVAIR 01-1A-8)</li> </ul>

	<ul> <li>Aircraft Weapons Systems Cleaning and Corrosion Control, Chapters 2-6 and 8 (NAVAIR 01-1A-509)</li> <li>All applicable NAVAIR Maintenance Instruction Manuals</li> <li>All applicable activity's instructions and standard operating procedures</li> </ul>
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the operations and types of aircraft brake systems and assemblies. These questions will include troubleshooting, removal/replacements of brake assembly and related components, safety of aircraft jacking procedures, adjusting and aligning, servicing hydraulics, performing patch tests, and support equipment operation procedures. These questions maybe of a general nature or specific to a type of equipment.

General AM <i>Skill Area</i>	AIRCRAFT WHEEL, TIRE, AND TUBE MAINTENANCE	
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maintenance of aircraft wheels, tires, and tubes	
Knowledge you should have to perform this skill:	<ul> <li>Qualification as O-level or I-level technician</li> <li>Identifying different types of aircraft wheels, tires and tubes</li> <li>Inspecting, testing, and troubleshooting of aircraft tires and wheels during aircraft maintenance</li> <li>Aircraft jacking procedures</li> <li>Removing and replacing wheel assembly during aircraft maintenance</li> <li>Tearing down and building up of aircraft wheel assembly (I-level)</li> <li>Repair procedures of aircraft wheel assembly (I-level)</li> <li>Identifying materials and hardware used on different types of aircraft wheel assemblies (nuts, bolts, bearings, felts, packing)</li> <li>Safety operating procedures for support equipment used on I-level and O-level maintenance activity</li> <li>Corrosion detection, prevention, and preservations of aircraft wheel assemblies</li> </ul>	
References you should study to gain the knowledge you need to perform this skill:	<ul> <li>Aviation Structural Mechanic (H&amp;S) 3 &amp; 2, Chapters 2 and 11 (NAVEDTRA 14018)</li> <li>Aviation Maintenance Ratings, Chapters 4, and 5 (NAVEDTRA 14022)</li> <li>Basic Handling and Safety Manual, Work Package 10 (NAVAIR 00-80T-96)</li> <li>Structural Hardware, Chapters 2, 4, 5, 7, and 8 (NAVAIR 01-1A-8)</li> </ul>	

- Maintenance of Aeronautical Anti-friction Bearings, Chapters 2, 3, 4, 5, 6, 7, 10, and 11 (NAVAIR 01-1A-503)
- Aircraft Weapons Systems Cleaning and Corrosion Control, Chapters 2, 3, 4, 5, 6, and 8 (NAVAIR 01-1A-509)
- Aircraft Wheels, Chapters 2 and 3 (NAVAIR 04-10-1)
- Aircraft Tires and Tubes, Chapters 2, 3, 4,
   5, and 6 (NAVAIR 04-10-506)
- All applicable NAVAIR Maintenance Instruction Manuals
- All applicable activity's instruction and standard operating procedures

You can expect questions about the qualifications required for both maintenance activities. Identifying different type of wheels, tires, tubes, and miscellaneous accessories. You can also expect questions on aircraft tire and wheel maintenance and repair procedures for I-level and O-level activities, as well as complying with safety operating procedures on all required support equipment during maintenance evolutions. You can also expect questions on the corrosion control maintenance program. These questions maybe of a general nature or specific to a type of aircraft wheels, tires, and tubes.

General AM <i>Skill Area</i>	UTILITY SYSTEMS	
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maintain launch bar systems	
Knowledge you should have to perform this skill:	<ul> <li>Operation of launch bar systems</li> <li>Inspecting and testing launch bar systems</li> <li>Removing and replacing launch bar system components</li> <li>Repairing, overhauling, and bench checking launch bar hydraulic components (I-level)</li> <li>Rigging, adjusting, and aligning launch bar systems</li> <li>Servicing launch bar systems</li> <li>Applying electrical and hydraulic power and performing functional checks on launch bar systems.</li> <li>Performing corrosion detection, treatment, and prevention on launch bar system components</li> </ul>	
References you should study to gain the knowledge you need to perform this skill:	<ul> <li>Aviation Structural Mechanic (H&amp;S) 3&amp;2, Chapters 1 and 12 (NAVEDTRA 14018)</li> <li>Aircraft Weapons Systems Cleaning and Corrosion Control Manual, Chapters 2, 3, 4, 5, 6, and 8 (NAVAIR 01-1A-509)</li> <li>Aviation Hydraulics Manual, Chapters 3, 6, 8, and 9 (NAVAIR 01-1A-170)</li> <li>Hose and Tube Manual, Chapters 2, 4, 6, 7, and 9 (NAVAIR 01-1A-20)</li> <li>All applicable NAVAIR Maintenance Instructions Manuals</li> <li>All applicable activity's instructions and standard operating procedures</li> </ul>	

You can expect questions about the operation of different launch bar systems and related components, to include inspection types, testing, troubleshooting, and removal and replacement of different components. You may also expect questions about rigging, adjusting, aligning, and servicing of the launch bar system. In addition, you may see questions regarding corrosion identification, detection, treatment, and prevention on components. These questions maybe of a general nature or specific to a particular launch bar system.

General AM <i>Skill Area</i>	UTILITY SYSTEMS	
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maintain arresting gear systems	
Knowledge you should have to perform this skill:	<ul> <li>Operation of arresting gear systems</li> <li>Inspecting and testing arresting gear systems</li> <li>Removing and replacing components</li> <li>Rigging and adjusting arresting gear systems</li> <li>Servicing arresting gear systems</li> <li>Performing functional checks of arresting gear systems</li> <li>Performing corrosion detection, treatment, and prevention of arresting gear components</li> </ul>	
References you should study to gain the knowledge you need to perform this skill:	<ul> <li>Aviation Structural Mechanic (H&amp;S) 3&amp;2, Chapters 1 and 12 (NAVEDTRA 14018)</li> <li>Aircraft Weapons Systems Cleaning and Corrosion Control Manual, Chapters 2, 3, 4, 5, 6, and 8 (NAVAIR 01-1A-509)</li> <li>Aviation Hydraulics Manual, Chapters 3, 6, 8, and 9 (NAVAIR 01-1A-17)</li> <li>Hose and Tube Manual, Chapters 2, 4, 6, 7, and 9 (NAVAIR 01-1A-20)</li> <li>All applicable NAVAIR Maintenance Instructions Manuals</li> <li>All applicable activity's instructions and standard operating procedures</li> </ul>	

You can expect questions about the operation of different types of arresting gear systems, to include inspection types, testing, troubleshooting, and removal and replacement of different components. You can also expect questions about rigging, adjusting, aligning, and servicing arresting gear systems. In addition, you may see questions regarding corrosion identification, detection, treatment, and prevention. These questions maybe of a general nature or specific to a type of arresting gear system or component.

General AM <i>Skill Area</i>	UTILITY SYSTEMS	
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maintain wing and tail fold systems	
Knowledge you should have to perform this skill:	<ul> <li>Operation of wing and tail fold systems</li> <li>Inspecting and testing wing and tail fold systems</li> <li>Removing and replacing components</li> <li>Rigging and adjusting wing and tail fold systems</li> <li>Servicing and performing functional checks of wing and tail fold systems</li> <li>Performing corrosion detection, treatment, and prevention on wing and tail fold components</li> </ul>	
References you should study to gain the knowledge you need to perform this skill:	<ul> <li>Aviation Structural Mechanic (H&amp;S) 3&amp;2, Chapters 1 and 12 (NAVEDTRA 14018)</li> <li>Aircraft Weapons Systems Cleaning and Corrosion Control Manual, Chapters 2, 3, 4, 5, 6, and 8 (NAVAIR 01-1A-509)</li> <li>Aviation Hydraulics Manual, Chapters 3, 6, 8, and 9 (NAVAIR 01-1A-17)</li> <li>Hose and Tube Manual, Chapters 2, 4, 6, 7, and 9 (NAVAIR 01-1A-20)</li> <li>All applicable NAVAIR Maintenance Instructions Manuals</li> <li>All applicable activity's instructions and standard operating procedures</li> </ul>	

You can expect questions about the operation of different types of wing and tail fold systems, to include inspection types, testing, troubleshooting, and removal and replacement of different components. You can also expect questions about rigging, adjusting, aligning, and servicing wing and tail fold systems. In addition, you may see questions regarding corrosion identification, detection, treatment, and prevention. These questions maybe of a general nature or specific to a type of wing and tail fold system or component.

General AM <i>Skill Area</i>	UTILITY SYSTEMS	
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maintain and test in-flight refueling (IFR) systems	
Knowledge you should have to perform this skill:	<ul> <li>Operation of in-flight refueling systems</li> <li>Inspecting and testing in-flight refueling systems</li> <li>Removing and replacing IFR system components</li> <li>Rigging and adjusting in-flight refueling systems</li> <li>Servicing and performing functional checks of in-flight refueling systems</li> <li>Performing corrosion detection, treatment, and prevention on in-flight refueling components</li> </ul>	
References you should study to gain the knowledge you need to perform this skill:	<ul> <li>Aviation Structural Mechanic (H&amp;S) 3&amp;2, Chapters 1 and 12 (NAVEDTRA 14018)</li> <li>Aircraft Weapons Systems Cleaning and Corrosion Control Manual, Chapters 2, 3, 4, 5, 6, and 8 (NAVAIR 01-1A-509)</li> <li>Aviation Hydraulics Manual, Chapters 3, 6, 8, and 9 (NAVAIR 01-1A-17)</li> <li>Hose and Tube Manual, Chapters 2, 4, 6, 7, and 9 (NAVAIR 01-1A-20)</li> <li>All applicable NAVAIR Maintenance Instructions Manuals</li> <li>All applicable activity's instructions and standard operating procedures</li> </ul>	

You can expect questions about the operation of different types of in-flight refueling systems, to include inspection types, testing, troubleshooting, and removal and replacement of different components. You can also expect questions about rigging, adjusting, aligning, and servicing in-flight refueling systems. In addition, you may see questions regarding corrosion identification, detection, treatment, and prevention. These questions maybe of a general nature or specific to a type of in-flight refueling system or component.

General AM <i>Skill Area</i>	UTILITY SYSTEMS	
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maintain windshield wiper systems	
Knowledge you should have to perform this skill:	<ul> <li>Operation of windshield wiper systems</li> <li>Inspecting and testing windshield wiper systems</li> <li>Removing and replacing components</li> <li>Rigging and adjusting windshield wiper systems</li> <li>Servicing and performing functional checks of windshield wiper systems</li> <li>Performing corrosion detection, treatment, and prevention on windshield wiper components</li> </ul>	
References you should study to gain the knowledge you need to perform this skill:	<ul> <li>Aviation Structural Mechanic (H&amp;S) 3&amp;2, Chapters 1 and 12 (NAVEDTRA 14018)</li> <li>Aircraft Weapons Systems Cleaning and Corrosion Control Manual, Chapters 2, 3, 4, 5, 6, and 8 (NAVAIR 01-1A-509)</li> <li>Aviation Hydraulics Manual, Chapters 3, 6, 8, and 9 (NAVAIR 01-1A-17)</li> <li>Hose and Tube Manual, Chapters 2, 4, 6, 7, and 9 (NAVAIR 01-1A-20)</li> <li>All applicable NAVAIR Maintenance Instructions Manuals</li> <li>All applicable activity's instructions and standard operating procedures</li> </ul>	

You can expect questions about the operation of different types of windshield wiper systems, to include inspection types, testing, troubleshooting, and removal and replacement of different components. You can also expect questions about rigging, adjusting, aligning, and servicing windshield wiper systems. In addition, you may see questions regarding corrosion identification, detection, treatment, and prevention on components. These questions maybe of a general nature or specific to a type of windshield wiper system or component.

General AM <i>Skill Area</i>	POWER SYSTEMS
A <i>skill</i> you are expected to perform from the General Skill Area above:	Inspect, test, troubleshoot, and maintain aircraft hydraulic power systems
Knowledge you should have to perform this skill:	<ul> <li>Operation of hydraulic and pneumatic power systems</li> <li>Inspecting, testing, and troubleshooting hydraulic and pneumatic power systems</li> <li>Removing and replacing hydraulic and pneumatic filters and components</li> <li>Servicing and performing functional checks of hydraulic and pneumatic power systems</li> <li>Performing corrosion detection, treatment, and prevention on hydraulic and pneumatic power system components</li> </ul>
References you should study to gain the knowledge you need to perform this skill:	<ul> <li>Aviation Structural Mechanic (H&amp;S) 3&amp;2, Chapters 1 and 12 (NAVEDTRA 14018)</li> <li>Aircraft Weapons Systems Cleaning and Corrosion Control Manual, Chapters 2, 3, 4, 5, 6, and 8 (NAVAIR 01-1A-509)</li> <li>Aviation Hydraulics Manual, Chapters 3, 6, 8, and 9 (NAVAIR 01-1A-17)</li> <li>Hose and Tube Manual, Chapters 2, 4, 6, 7, and 9 (NAVAIR 01-1A-20)</li> <li>All applicable NAVAIR Maintenance Instructions Manuals</li> <li>All applicable activity's instructions and standard operating procedures</li> </ul>

You can expect questions about the operation of different types of hydraulic and pneumatic power systems, to include inspection types, testing, troubleshooting, and removal and replacement of different components. You can also expect questions about servicing and performing hydraulic patch tests. In addition, you may see questions regarding corrosion identification, detection, treatment, and prevention on components. These questions maybe of a general nature or specific to a type of hydraulic or pneumatic system or component.

General AM <i>Skill Area</i>	STRUCTURAL REPAIR AND INSPECTION	
A <i>skill</i> you are expected to perform from the General Skill Area above:	Repair of structural damages on skins, ribs, longerons, stringers, and spars.	
Knowledge you should have to perform this skill:	<ul> <li>Inspecting aircraft structural skins, ribs, longerons, stringers and spars for damages</li> <li>Assessing different type of damages and determining what kind of structural patches required for used on specific aircraft skin patch repair</li> <li>Identifying suitable metals, rivets hardware for structural repairs</li> <li>Removing and replacing aircraft structures and related components</li> <li>Blueprint reading</li> <li>Laying out pattern for specific structural repair</li> <li>Proper used of basic tools and power tools in fabrication of aircraft panels, doors, ribs, stringers, and skins (I-level)</li> <li>Adjusting and aligning aircraft panels, doors, and cowlings</li> <li>Corrosion detection, prevention, and preservation of aircraft panels, doors, cowlings and attached hardware</li> </ul>	
References you should study to gain the knowledge you need to perform this skill:	<ul> <li>Aviation Structural Mechanic (H&amp;S) 3 &amp; 2, Chapters 1, 2, and 13 (NAVEDTRA 14018)</li> <li>Use and Care of Hand Tools and Measuring Tools, Chapters 2, 3, 5, 8, 12, 13, 14, 21, 22, 27, 28, and 31 (NAVEDTRA 12085)</li> <li>Aviation Maintenance Ratings, Chapter 4 (NAVEDTRA 14022)</li> </ul>	

•	Blueprint Reading and Sketching,
	Chapters 1-4 and 8 (NAVEDTRA 12014)

- General Manual for Structural Repair, Chapters 2-5, 8, and 9 (NAVAIR 01-1A-1)
- Structural Hardware, Chapters 2-5, 7, and 8 (NAVAIR 01-1A-8)
- Aerospace Metals–General Data and Usage Factor, Chapter 3 (NAVAIR 01-1A-9)
- All applicable NAVAIR Structural Repair Manuals
- All applicable activity's instructions and standard operating procedures

You can expect questions about different types of metals and hardware used in repairing aircraft panels, skins, ribs, longerons, and stringers, to include inspection and assessment of structural damage limitation on aircraft structures and panels. You can also expect questions in interpreting blueprint reading and flat layout, adjusting and alignment during installation of different access panels, doors, and related structural components. These questions maybe of a general nature or specific to a type of aircraft structural repair.

General AMH <i>Skill Area</i>	STRUCTURAL REPAIR/MAINTENANCE
A <i>skill</i> you are expected to perform from the General Skill Area above:	Repair and maintain aircraft fuselages, empennages, control surfaces, and wings
Knowledge you should have to perform this skill:	<ul> <li>Inspecting aircraft fuselages, empennages, control surfaces, and wings</li> <li>Assessing damages and determining structural repairs required for specific materials</li> <li>Identifying suitable materials, rivets, and hardware for structural repairs</li> <li>Removing and replacing aircraft skins, ribs, stringers, spars, and related components</li> <li>Blueprint reading</li> <li>Laying out pattern for specific structural repair</li> <li>Proper use of hand and power tools in the repair of aircraft fuselages, empennages, control surfaces, and wings</li> <li>Performing corrosion detection, treatment, and prevention on aircraft fuselages, empennages, control surfaces, and wings</li> </ul>
References you should study to gain the knowledge you need to perform this skill:	<ul> <li>Aviation Structural Mechanic (H&amp;S) 3 &amp; 2, Chapters 1, 2, and 13 (NAVEDTRA 14018)</li> <li>Use and Care of Hand Tools and Measuring Tools, Chapters 2, 3, 5, 8, 12, 13, 14, 21, 22, 27, 28, and 31 (NAVEDTRA 12085)</li> <li>Aviation Maintenance Ratings, Chapter 4 (NAVEDTRA 14022)</li> <li>Blueprint Reading and Sketching, Chapters 1-4 and 8 (NAVEDTRA 12014)</li> <li>General Manual for Structural Repair, Chapters 2-5, 8, and 9 (NAVAIR 01-1A-1)</li> </ul>

<ul> <li>Structural Hardware,</li> </ul>	Chapters 2-5, 7	, and 8
(NAVAIR 01-1A-8)		

- Aerospace Metals–General Data and Usage Factor, Chapter 3 (NAVAIR 01-1A-9)
- All applicable NAVAIR Structural Repair Manuals
- All applicable activity's instructions and standard operating procedures

You can expect questions about different types of metals and hardware used to repair aircraft fuselages, empennages, control surfaces, and wings. In addition, you can expect questions about inspecting and assessing structural damage and adjusting and aligning different empennages, control surfaces, and related structural components. You may also see questions about interpreting blueprints, performing pattern layouts, and corrosion prevention and treatment. These questions maybe of a general nature or specific to a type of aircraft fuselage, empennage, control surface, wing, or structural repair.

General AM <i>Skill Area</i>	AIRCRAFT WINDSHIELD AND WINDSCREEN MAINTENANCE
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maintain aircraft windshields and windscreens
Knowledge you should have to perform this skill:	<ul> <li>Inspecting aircraft windshields and windscreens for cracks, damage and scratches</li> <li>Identifying damage limitations of aircraft windshields and windscreens</li> <li>Basic repairs and maintenance techniques of aircraft windshields and windscreens</li> <li>Use of special tools/instrument that aids in finding depth limit on cracks and scratches for aircraft windshields and windscreens</li> <li>Fabricating aircraft transparent plastic materials (I-level)</li> <li>Removing and replacing aircraft windshields and windscreens and related hardware</li> <li>Torque applications on bolts and screws during windshield installations</li> <li>Cleaning and polishing aircraft windshields and windscreens</li> <li>Repairing aircraft windshields and windscreens</li> <li>Maintaining transparent plastics</li> <li>Handling of transparent plastic materials</li> <li>Corrosion detection, prevention, and preservation of aircraft windshield and windscreen structural components</li> </ul>

<i>References</i> you should
study to gain the
knowledge you need to
perform this skill:

- Aviation Structural Mechanic (H&S) 3 & 2, Chapters 1, 2, and 14 (NAVEDTRA 14018)
- General Manual for Structural Repair, Chapters 3, 7, 8 11, and 12 (NAVAIR 01-1A-1)
- Structural Hardware, Chapters 3, 5, 7, and 8 (NAVAIR 01-1A-8)
- Fabrication, Maintenance and Repair of Plastics, Chapters 2-8 and 9 (NAVAIR 01-1A-12)
- Naval Aircraft Battle Damage Repair, Chapter 2 (NAVAIR 01-1A-39)
- Aircraft Weapons Systems Cleaning and Corrosion Control, Chapters 3, 6, and Appendices A & B (NAVAIR 01-1A-509)
- All applicable NAVAIR Maintenance Instruction Manuals
- All applicable activity's instructions and standard operating procedures

Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:

You can expect questions on basic maintenance, inspection techniques and repairing of aircraft windshields and windscreens. You can expect questions on how to identify damage limitations by visual or use of special tools and how to remove and replace windshields and windscreens. You can also expect questions on proper cleaning and polishing materials for aircraft canopies, and how to perform torque application and safe handling procedures for transparent plastics and related components. These question maybe of a general nature or specific to a type of aircraft windshield or windscreen.

General AM <i>Skill Area</i>	AIRCRAFT NONMETALLIC REPAIRS
A <i>skill</i> you are expected to perform from the General Skill Area above:	Perform inspections and repairs of fiberglass, honeycombs, and advance composite materials
Knowledge you should have to perform this skill:	<ul> <li>Qualification as O-level or I-level technician</li> <li>Identification of proper materials for different nonmetallic repairs</li> <li>Inspecting aircraft fiberglass components for cracks, chips, and delaminations</li> <li>Inspecting honeycomb components for cracks, chips, and separations</li> <li>Inspecting advance composite components for cracks, chips, and delaminations</li> <li>Proper repair procedures of fiberglass, honeycomb, and advance composite materials</li> <li>Use of special equipment for repairing different types of nonmetallic components (I-level)</li> <li>Identifying and selecting proper hardware when replacing nonmetallic components</li> <li>Corrosion detection, prevention, and preservation of attached hardware</li> </ul>
References you should study to gain the knowledge you need to perform this skill:	<ul> <li>Aviation Structural Mechanic (H&amp;S) 3 &amp; 2, Chapters 1, 2, and 14 (NAVEDTRA 14018)</li> <li>Structural Hardware Manual, Chapters 2, 3, 5, 6, and 7 (NAVAIR 01-1A-8)</li> <li>Fabrication, Maintenance and Repair of Plastics, Chapters 2, 3, 4, 5, 6, 7, 8, and 9 (NAVAIR 01-1A-12)</li> <li>Aircraft Radomes and Antenna Covers, Chapters 2, 4, 5, and 6 (NAVAIR 01-1A-22)</li> </ul>

	<ul> <li>Naval Aircraft Battle Damage Repair, Chapter 2 (NAVAIR 01-1A-39)</li> <li>Aircraft Weapons Systems Cleaning and Corrosion Control, Chapters 2-6 and Appendices A &amp; B (NAVAIR 01-1A-509)</li> <li>All applicable NAVAIR Maintenance Instruction Manuals</li> <li>All applicable activity's instructions and standard operating procedures</li> </ul>
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions on inspection, proper maintenance, and repair procedures of nonmetallic components to include identifying proper materials and hardware during installation of fiberglass, honeycombs, and composite components. You can also expect questions about qualifications and familiarization of all special equipment required to repair reinforced fiberglass, honeycomb, and advance composite materials. These questions maybe of a general nature or specific to a type of aircraft nonmetallic components.

General AM <i>Skill Area</i>	AIRCRAFT PAINT AND FINISH MAINTENANCE
A <i>skill</i> you are expected to perform from the General Skill Area above:	Aircraft Paint Preparation and Finish Applications
Knowledge you should have to perform this skill:	<ul> <li>Qualification as O-level or I-level paint technician</li> <li>Concept of aircraft preservation</li> <li>Inspecting aircraft paint schemes</li> <li>Identifying paint surface defects and probable cause after painting application</li> <li>Preparing metallic and nonmetallic structure surfaces for priming and painting</li> <li>Cutting stencils for aircraft markings</li> <li>Laying out aircraft markings</li> <li>Maintaining aircraft spraying equipment</li> <li>Cleaning of aircraft paint spraying equipment</li> <li>Tearing down and building up of aircraft paint spraying equipment components</li> <li>Identifying aircraft paint gun components and their functions</li> <li>Inspecting aircraft spraying equipment</li> <li>Adjusting paint gun's spray patterns for proper paint application</li> <li>Adjusting air pressures for different paint scheme applications</li> <li>Mixing aircraft primers and paint schemes</li> <li>Identifying different aircraft paint schemes</li> <li>Using different types of thinners for reducing aircraft primers and paints viscosity</li> <li>Knowing different dwell times and drying times in painting applications</li> <li>Identifying paint surface defects and probable cause after painting application</li> </ul>

	Adhering to safety procedure in handling hazardous materials
References you should study to gain the knowledge you need to perform this skill:	<ul> <li>Aviation Structural Mechanic (H&amp;S) 3 &amp; 2, Chapters 11 and 14 (NAVEDTRA 14018)</li> <li>Aviation Maintenance Ratings, Chapter 4 (NAVEDTRA 14022)</li> <li>Aircraft Weapons Systems Cleaning and Corrosion Control, Chapter 7 and Appendices A &amp; B (NAVAIR 01-1A-509)</li> <li>Navy Occupational Safety and Health (NAVOSH) Program Manual, Chapters 3, 15, and 19 (OPNAVINST 5100.23C)</li> <li>All applicable NAVAIR structural manuals</li> <li>All applicable activity's instructions and safety standard operating procedures</li> </ul>
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the qualifications of aircraft painters to include identification of different types of aircraft spraying equipment, knowing the different types of paints and primers, and mixing paints and primers along with their dwell times and curing times. You can also expect questions on proper care and use of painting equipment, identification of different surface defects and remedies, proper use of personal safety devices, and adhering to safety procedures and practices during aircraft surface painting in the field or in confined work spaces. These questions maybe of a general nature or specific to a type of aircraft painting equipment.

General AM Skill Area	AIRCRAFT CORROSION CONTROL MAINTENANCE
A <i>skill</i> you are expected to perform from the General Skill Area above:	Aircraft Corrosion Detection, Prevention, and Preservation
Knowledge you should have to perform this skill:	<ul> <li>Theory of corrosions on naval aircraft</li> <li>Fundamentals of aircraft corrosion prevention and preservation</li> <li>Detecting and identifying different types of corrosion on naval aircraft</li> <li>Determining the causes of corrosion on different types of metals and remedies to combat corrosion on naval aircraft</li> <li>Using chemical and mechanical means of corrosion removal</li> <li>Qualification requirements for operating portable and stationary dry honing machines</li> <li>Proper procedures when applying corrosion preventive materials during corrosion maintenance evolution</li> <li>Fundamentals of aircraft preservations</li> <li>Types of aircraft preservation</li> <li>Knowing different level of preservations and depreservation used on naval aircraft</li> <li>Adhering to the safety procedures in handling and using hazardous materials</li> </ul>
References you should study to gain the knowledge you need to perform this skill:	<ul> <li>Aviation Maintenance Ratings, Chapter 4 (NAVEDTRA 14022)</li> <li>General Manual for Structural Repair, Chapters 4 and 9 (NAVAIR 01-1A-1)</li> <li>Aircraft Weapons Systems Cleaning and Corrosion Control, Chapters 1-6, 8, 9 and Appendices A, B, C, and D (NAVAIR 01-1A-509)</li> </ul>

- Preservation of Naval Aircraft, Chapters 1-4 (NAVAIR 15-01-500)
- Avionics Cleaning and Corrosion Prevention/Control, Chapters 2-5 (NAVAIR 16-1-540)
- Navy Occupational Safety and Health (NAVOSH) Program Manual, Chapters 3, 15, and 19 (OPNAVINST 5100.23C)
- All applicable NAVAIR Maintenance Instruction Manuals
- All applicable activity's instructions and standard operating procedures

Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:

You can expect questions about the fundamentals of aircraft corrosion, prevention, and preservation to include inspection techniques, identifying types of corrosion, and operation of portable and stationary dry honing machines. You can also expect questions in corrosion removal by chemical and mechanical means. You can also expect questions on the corrosion prone areas of naval aircraft, as well as the different levels of preservation and de-preservation applied to naval aircraft. These questions maybe of a general nature or specific to a type of corrosion.

General AM <i>Skill Area</i>	WORK CENTER TOOL CONTROL
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maintain Tool Control in the Work Center
Knowledge you should have to perform this skill:	<ul> <li>Fundamentals of Tool Control Program</li> <li>Controlling and maintaining work center tool control program</li> <li>Identifying marks or etching of tools for work center tool control program</li> <li>Performing tool control inventories</li> <li>Inspecting tool containers for missing or broken tools</li> <li>Inspecting tools and tool containers for Foreign Object Damage (FOD)</li> <li>Proper procedures in checking out and returning tools in compliance with the tool control program</li> <li>Preparing broken or missing tool reports</li> <li>Investigating missing tools</li> <li>Ordering new tools</li> </ul>
References you should study to gain the knowledge you need to perform this skill:	<ul> <li>Aviation Maintenance Ratings, Chapter 3 (NAVEDTRA 14022)</li> <li>The Naval Aviation Maintenance Program (NAMP), Volume I, Chapter 16, (OPNAVINST 4790.2G)</li> <li>The Naval Aviation Maintenance Program, (NAMP), Volume III, Chapter 8, (OPNAVINST 4790.2G)</li> <li>The Naval Aviation Maintenance Program, (NAMP), Volume V, Chapter 16, (OPNAVINST 4790.2G)</li> <li>All applicable NAVAIR Maintenance Instruction Manuals</li> </ul>

	All applicable activity's instructions and standard operating procedures
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about management and maintenance of the Tool Control Program to include personnel responsibility and accountability in complying with the Tool Control Program, inspection of tool conditions, inventory, and cleanliness of toolboxes for Foreign Object Damage (FOD). You can also expect questions on investigation requirements when tools are reported missing in the work center, as well as reporting procedures for broken tools and procedures for ordering replacements. These questions maybe of a general nature or specific to a type of Tool Control Program responsibility.

General AM <i>Skill Area</i>	AIRCRAFT WELDING REPAIR AND NONDESTRUCTIVE INSPECTION (NDI)
A <i>skill</i> you are expected to perform from the General Skill Area above:	Perform Aircraft Welding and Nondestructive Inspection
Knowledge you should have to perform this skill:	<ul> <li>Theory and fundamentals of aircraft welding</li> <li>Theory and fundamentals of Nondestructive Inspection (NDI)</li> <li>Qualification requirements for certification as Welder and qualified Nondestructive Inspection Technician/Operator</li> <li>Identifying different types of aeronautical welding equipment used in Naval aircraft</li> <li>Identifying the difference between fusion welding and brazing</li> <li>Selecting aircraft metals for welding compatibility</li> <li>Identifying different types of equipment used in Nondestructive Inspection (NDI) for Naval aircraft</li> <li>Identifying different materials used in Nondestructive Inspection (NDI)</li> <li>Applying different methods of Nondestructive inspections (NDI) for different metals</li> <li>Inducting of repairable and work request to I-level activity via supply</li> <li>Corrosion detection, prevention, and preservation of equipment after performing NDI or welding repairs</li> </ul>

References you should study to gain the knowledge you need to perform this skill:

- Aviation Structural Mechanic (H&S) 3 & 2, Chapter 15 (NAVEDTRA 14018)
- Aviation Maintenance Ratings, Chapters 2-4 (NAVEDTRA 14022)
- General Manual for Structural Repair, Chapter 10 (NAVAIR 01-1A-1)
- Nondestructive Inspection Methods, Chapters 1 and 2, (NAVAIR 01-1A-16)
- Aeronautical Equipment Welding, All chapters (NAVAIR 01-1A-34)
- Aircraft Weapons Systems Cleaning and Corrosion Control, Chapters 3 and 5 (NAVAIR 01-1A-509)
- All applicable NAVAIR Maintenance Instruction Manuals
- All applicable activity's instructions and standard operating procedures

Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:

You can expect questions about the requirements for certification as welders and Nondestructive Inspectors to include fundamentals of welding and NDI, the different equipment used for welding and the NDI process, and identification of metals that are weldable and non-weldable for aircraft use. You can also expect questions on how to perform welding and brazing, the different methods of NDI, as well as how to identify different materials and chemicals used for NDI application. You will also see questions on how to induct repairable components into supply for Intermediate Level activities for inspection or repair.

General AM <i>Skill Area</i>	AIRCRAFT HYDRAULIC CONTAMINATION PROGRAM
A <i>skill</i> you are expected to perform from the General Skill Area above:	Hydraulic Contamination Program
Knowledge you should have to perform this skill:	<ul> <li>Fundamentals and concept of hydraulic contamination program</li> <li>Training and qualification requirements for hydraulic contamination program</li> <li>Identifying different types of support equipment used in hydraulic contamination program</li> <li>Servicing procedures and operations of hydraulic contamination support equipment</li> <li>Drawing fluids from different hydraulic systems</li> <li>Hydraulic patch testing</li> <li>Identifying the classification of hydraulic patch test samples</li> <li>Managing and monitoring hydraulic contamination program</li> <li>Adhering to the safety procedures in handling of hazardous materials</li> </ul>
References you should study to gain the knowledge you need to perform this skill:	<ul> <li>Aviation Structural Mechanic (H&amp;S) 3 &amp; 2, Chapters 4-7 (NAVEDTRA 14018)</li> <li>Aviation Hydraulics Manual, Chapters 1-9 (NAVAIR 01-1A-17)</li> <li>The Naval Aviation Maintenance Program, (NAMP), Volume V, Chapter 6 (OPNAVINST 4790.2G)</li> <li>NAVAIROSH Requirements For the Shore Establishment, Chapters 4 and 6 (NAVAIR A1-NAOSH-SAF-000/P-5100)</li> </ul>

Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:

You can expect questions about the qualification requirements for performing hydraulic contamination patch test; operation, handling and servicing of support equipment; and identification of different kinds of hydraulic fluid. You can also expect questions on fluid samples, and how to perform hydraulic patch tests and result identification, and compliance of handling hazardous materials safely. These question maybe of a general nature or specific to a type of hydraulic fluid or support equipment.

General AM <i>Skill Area</i>	AIRCRAFT JACKING MAINTENANCE
A <i>skill</i> you are expected to perform from the General Skill Area above:	Perform Aircraft Jacking Operation and Maintenance
Knowledge you should have to perform this skill:	<ul> <li>Aircraft jacking qualifications</li> <li>Operating and maintaining different type of aircraft jacks</li> <li>Identifying different types of aircraft jacks</li> <li>Applications of different types of aircraft jacks</li> <li>Complying with safety procedures in lowering and raising different types of aircraft</li> <li>Knowing the capacities and restrictions while jacking an aircraft</li> <li>Requirements of removal and installation of securing devices while raising or lowering of aircraft from jacks</li> </ul>
References you should study to gain the knowledge you need to perform this skill:	<ul> <li>Aviation Structural Mechanic (H&amp;S) 3 &amp; 2, Chapter 3 (NAVEDTRA 14018)</li> <li>Index and Application Tables for Aircraft Jacks, Chapters 1-5 (NAVAIR 19-70-46)</li> <li>All applicable NAVAIR Maintenance Instruction Manuals</li> <li>All applicable activity's instructions and standard operating procedures</li> </ul>
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the operation, servicing, and maintenance of different types of aircraft jacks; identification, applications, and safety procedures for operating aircraft jacks; and requirements for removing and

aircraft. These questions maybe of a general nature or specific to a type of aircraft jacks.
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#### Part 2

General AM <i>Skill Area</i>	HOSE AND TUBE REPAIR/ MANUFACTURING
A <i>skill</i> you are expected to perform from the General Skill Area above:	Inspect and replace rigid tubing and hardware
Knowledge you should have to perform this skill:	<ul> <li>Inspecting, testing, and troubleshooting hydraulic and pneumatic tubing</li> <li>Removing and replacing hydraulic and pneumatic tubing and related hardware</li> <li>Manufacturing and bench testing hydraulic and pneumatic tube assemblies</li> <li>Servicing and performing functional checks of hydraulic and pneumatic systems</li> <li>Performing corrosion detection, treatment, and prevention on hydraulic and pneumatic power system components</li> </ul>
References you should study to gain the knowledge you need to perform this skill:	<ul> <li>Aviation Structural Mechanic (H&amp;S) 3&amp;2, Chapters 1 and 12 (NAVEDTRA 14018)</li> <li>Aircraft Weapons Systems Cleaning and Corrosion Control Manual, Chapters 2, 3, 4, 5, 6, and 8 (NAVAIR 01-1A-509)</li> <li>Aviation Hydraulics Manual, Chapters 3, 6, 8, and 9 (NAVAIR 01-1A-17)</li> <li>Hose and Tube Manual, Chapters 2, 4, 6, 7, and 9 (NAVAIR 01-1A-20)</li> <li>All applicable NAVAIR Maintenance Instructions Manuals</li> <li>All applicable activity's instructions and standard operating procedures</li> </ul>

Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:

You can expect questions about the different types of hydraulic and pneumatic tubing to include inspection types, testing, troubleshooting, and removing and replacing tube assemblies and related hardware. You can also expect questions about manufacturing and bench testing tube assemblies, along with servicing and performing hydraulic patch tests. In addition, you may see questions regarding corrosion identification, detection, treatment, and prevention on tube assemblies and hardware. These questions maybe of a general nature or specific to a type of hydraulic or pneumatic system or tube assembly.

General AM <i>Skill Area</i>	MAITENANCE DATA SYSTEM ADMINISTRATION
A <i>skill</i> you are expected to perform from the General Skill Area above:	Review and correct Daily Audit Reports (DAR)
Knowledge you should have to perform this skill:	<ul> <li>Fundamentals and concepts of Maintenance Data System (MDS) Program</li> <li>Identifying systems or subsystems interrelated under MDS program, such as Maintenance Data Reports (MDRs), Subsystem Capability Impacting Report (SCIR), Material Report (MR), and Utilization Reporting</li> <li>Inducting and tracking VIDS/MAFs through complete process for all maintenance actions</li> <li>Reviewing Daily Audit Reports (DAR), recognizing errors, and taking actions required to correct discrepancies via resubmission to Data Support Facility (DSF)</li> <li>Recognizing and reviewing information contained in the different Maintenance Data Reports (DAR and MDR-2 through MDR-13)</li> <li>Reviewing and verifying MDR-2 against the DAR for accuracy and correcting errors found</li> <li>Identifying and recognizing different reports under the SCIR Program, such as SCIR-3 through SCIR-5, and familiarizing yourself with how they impact the work center and its ability to perform daily or monthly maintenance</li> </ul>

References you should study to gain the knowledge you need to perform this skill:

- Aviation Maintenance Ratings, Chapter 1 (NAVADTRA 14022)
- The Naval Aviation Maintenance Program (NAMP), Volume III, Chapters 2 and 3 (OPNAVINST 4790.2)
- All applicable NAVAIR Maintenance Instruction Manuals
- All applicable activity's instructions and standard operating procedures

Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:

You can expect questions about the fundamentals, purpose, and concept of the Maintenance Data System (MDS) and its application toward the daily workloads. You may also expect questions about different types of MDR, SCIR, MR, and Monthly Utilization Reports. In addition, you may see questions on reviewing Daily Audit Reports for accuracy and procedures for making corrections when required. These questions maybe of general nature or specific to a particular type of report under the Maintenance Data System.

General AM <i>Skill Area</i>	AIRCRAFT INVENTORY
A <i>skill</i> you are expected to perform from the General Skill Area above:	Perform aircraft inventory inspections
Knowledge you should have to perform this skill:	<ul> <li>Fundamentals and purpose of aircraft inventory inspection</li> <li>Identifying different types of scheduled and unscheduled maintenance required during inventory inspections</li> <li>Reviewing aircraft history records, aircraft inventory records, equipment lists, and aircraft inventory shortage lists</li> <li>Identifying different aircraft component removal and installation records, such as Equipment History Record (EHR), Scheduled Removal Component (SRC) Cards, and Aeronautical Equipment Service Records (AESR), and using the Periodic Maintenance Inspection Cards</li> <li>Procedures and requirements for performance of acceptance and transfer inspections of aircraft</li> <li>Documenting discrepancies found during acceptance and transfer inspections</li> <li>Submitting Aircraft Discrepancy Report (ADR)</li> <li>Documenting Logbook entries of components removed and installed due to high time</li> </ul>
References you should study to gain the knowledge you need to perform this skill:	<ul> <li>Aviation Maintenance Ratings, Chapter 5 (NAVEDTRA 14022)</li> <li>The Naval Aviation Maintenance Program (NAMP), Volume I, Chapters 12 and 13 (OPNAVINST 4790.2)</li> </ul>

	<ul> <li>The Naval Aviation Maintenance Program (NAMP), Volume III, Chapters 6 and 7 (OPNAVINST 4790.2)</li> <li>All applicable NAVAIR Maintenance Instruction Manuals</li> <li>All applicable activity's instructions and standard operating procedures</li> </ul>
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about aircraft logbooks, logbook entries, and inspection requirements for performing aircraft inventory inspections. You can also expect questions about different aircraft history records, such as EHR, SRC, and AESR cards using the PMIC and MRC decks. In addition, you may see questions relating to the identification of aircraft components that have high time and when they should be removed and replaced. These questions maybe of a general nature or specific to a particular type of history record, aircraft inspection, or inventory procedure.

General AM Skill Area	PRECISION MEASURING EQUIPMENT
A <i>skill</i> you are expected to perform from the General Skill Area above:	Route precision measuring equipment for calibration
Knowledge you should have to perform this skill:	<ul> <li>Fundamentals, concepts, and operation of the Naval Aviation Metrology and Navy Calibration Program</li> <li>Maintaining calibrated equipment using different formats and recall listings under the MEASURE Program</li> <li>Understanding the different formats used under the MEASURE program (Inventory Format 310 List, Inventory Format 311 List, Inventory Format 350, Recall Format 805, and Recall Format 802) and how to use them for management of the calibration program</li> <li>Understanding calibration cycles and intervals of different equipment requiring calibration</li> <li>Packaging, handling, and routing of equipment requiring calibration</li> <li>Routing of paper work via chain of command when extensions or deviations are necessary for any of the calibrated equipment</li> </ul>
References you should study to gain the knowledge you need to perform this skill:	<ul> <li>Aviation Maintenance Ratings, Chapter 5 (NAVEDTRA 14022)</li> <li>The Naval Aviation Maintenance Program (NAMP), Volume I, Chapter 10 (OPNAVINST 4790.2)</li> <li>The Naval Aviation Maintenance Program (NAMP), Volume V, Chapter 19 (OPNAVINST 4790.2)</li> </ul>

	<ul> <li>All applicable NAVAIR Maintenance Instruction Manuals</li> <li>All applicable activity's instructions and standard operating procedures</li> </ul>
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the calibration schedules, program management, and induction procedures for calibrated equipment to the maintenance activity, as well as field activities and rework facilities, for repairs. You can also expect questions about different management tools, such as inventory formats and recall lists, deviation and extension requirements, and routing for approval from designated authorities. These questions maybe of a general nature or specific to a particular type of precision measuring equipment or process.

#### Part 3

General AM S <i>kill Area</i>	FLIGHT CONTROL SYSTEMS ROTARY
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maintain main rotor, tail rotor, and blade fold systems
Knowledge you should have to perform this skill:	<ul> <li>Inspecting main and tail rotor blade assemblies</li> <li>Assessing damage and identifying repair types and materials for non-metallic repairs</li> <li>Proper repair procedures for composite materials</li> <li>Use of special equipment and tools to perform different types of repairs on composite materials</li> <li>Inspecting, testing, and troubleshooting blade fold systems</li> <li>Removing and replacing components of the blade fold system</li> <li>Repairing, overhauling, and bench testing components of the blade fold system</li> <li>Corrosion detection, treatment, and prevention on main rotor, tail rotor, and blade fold system components</li> </ul>
References you should study to gain the knowledge you need to perform this skill:	<ul> <li>Aviation Structural Mechanic (H&amp;S) 3 &amp; 2, Chapters 1, 2, 10, and 14 (NAVEDTRA 14018)</li> <li>Aviation Maintenance Ratings, Chapter 5 (NAVEDTRA 14022)</li> <li>Structural Hardware Manual, Chapters 2, 3, 5, 6, and 7 (NAVAIR 01-1A-8)</li> <li>Blueprint Reading and Sketching,</li> </ul>

Chapters 1-4 and 8 (NAVEDTRA 12014)

- General Manual for Structural Repair, Chapters 2-5, 8, and 9 (NAVAIR 01-1A-1)
- Aircraft Weapons Systems Cleaning and Corrosion Control, Chapters 2-6 and 8 (NAVAIR 01-1A-509)
- All applicable NAVAIR Maintenance Instruction Manuals
- All applicable NAVAIR Structural Repair Manuals
- All applicable activity's instructions and standard operating procedures

Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:

You can expect questions on inspecting, assessing damage, and identifying repair types for main and tail rotor assemblies. In addition, you can also expect to see questions about repair procedures and use of special equipment and tools required to perform composite repairs. You can expect to see questions about inspecting, testing, troubleshooting, removing, replacing, repairing, and overhauling blade fold system components. In addition, you may also see questions relating to corrosion detection, treatment, and prevention on main and tail rotor blades and blade fold system components. These questions may be of a general nature or specific to a type of rotor blade system or repair procedure.

General AM <i>Skill Area</i>	AVIATION SUPPORT
A <i>skill</i> you are expected to perform from the General Skill Area above:	Review supply department HAZMAT Users Guide
Knowledge you should have to perform this skill:	<ul> <li>Retrieve and interpret MSDS data</li> <li>Access data contained in the HMUG and SHML on the HMC&amp;M CD-ROM</li> <li>Recall safe handling procedures</li> <li>Recall storage and temperature restrictions for flammables, combustibles, corrosives, acids, oxidizers, alcohol, acetylene, oxygen, chlorine, and compressed gas cylinders</li> <li>Define work related terms</li> </ul>
References you should study to gain the knowledge you need to perform this skill:	<ul> <li>NAVSUPINST 4030.55 (series), Packaging of Hazardous Material</li> <li>NAVSUPINST 4440.128 (series), Storage and Handling of Compressed Gasses and Liquids in Cylinders, and of Cylinders</li> <li>OPNAVINST 5100.19 (series), Navy Occupational Safety and Health (NAVOSH) Program Manual for Forces Afloat, Chapters B3, C23, and C24</li> </ul>
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect to see a wide range of questions dealing with identification, safety, storage, and shipping procedures. You will also see questions about temperature limitations, groups of HAZMAT, fire suppression requirements, material stowage compatibility, gas cylinder identification and storage, and safety equipment. In addition, you can expect questions about information contained in the MSDS and HMUG.

General AM S <i>kill Area</i>	CORROSION CONTROL
A <i>skill</i> you are expected to perform from the General Skill Area above:	Apply Aircraft Primers and Paints
Knowledge you should have to perform this skill:	<ul> <li>Qualification requirements for aircraft painter for O-level or I-level maintenance activities</li> <li>Maintaining spray equipment and related tools used in paint application</li> <li>Mixing of paints and primers</li> <li>Adjusting consistency and viscosity of paints and primers</li> <li>Setting air pressure regulators and adjusting painting equipment</li> <li>Utilizing proper distance and correct angle of spray equipment during paint and primer application</li> <li>Identifying different surface materials that require painting (metals, plastics, fiberglass, and composites) and choosing proper techniques</li> <li>Safety procedures as required by Material Safety Data Sheet (MSDS), Hazardous Material Users guide (HAZMAT), and NAVOSH Instructions and OSHA Instructions</li> </ul>
References you should study to gain the knowledge you need to perform this skill:	<ul> <li>Aviation Maintenance Ratings, Chapter 4 (NAVEDTRA 14022)</li> <li>Aviation Structural Mechanic (H&amp;S) 3&amp; 2, Chapter 14 (NAVEDTRA 14018)</li> <li>Aircraft Weapons Systems Cleaning and Corrosion Control, Chapter 7, Appendices A and B (NAVAIR 01-1A509)</li> <li>Aircraft Radomes and Antenna Covers,</li> </ul>

	<ul> <li>Chapter 6 (NAVAIR 01-1A-22)</li> <li>Navy Occupational Safety And Health (NAVOSH) Program Manual, Chapters 3, 15, and 19 (OPNAVINST 5100-23B)</li> <li>All applicable NAVAIR Maintenance Instruction Manuals</li> <li>All applicable activity's instructions and safety standard operating procedures</li> </ul>
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about qualification requirements, care and maintenance of spray equipment and tools, and mixing of paints and primers. In addition, you can expect questions about proper techniques relating to different types of materials and paints. These questions maybe of a general nature or specific to a type of paint or primer and its application techniques.

General AM <i>Skill Area</i>	QUALITY DEFICIENCY REPORTS
A <i>skill</i> you are expected to perform from the General Skill Area above:	Prepare Quality Deficiency Reports
Knowledge you should have to perform this skill:	<ul> <li>Fundamentals and concepts of Naval Aviation Maintenance Discrepancy Reporting Program (NAMDRP) and instructions governing Quality Deficiency Reports (QDRs)</li> <li>Recognizing and categorizing types of QDRs that apply to discrepancies found</li> <li>Initiating, drafting, submitting, and routing Quality Deficiency Reports</li> <li>Packaging, handling, storing, and shipping of QDR exhibits</li> <li>Tracking and updating Quality Deficiency Report status</li> <li>Communicating with the Cognizant Field Activity (CFA) and documenting final results</li> </ul>
References you should study to gain the knowledge you need to perform this skill:	<ul> <li>Aviation Structural Mechanic (H&amp;S) 3&amp;2, Chapter 3 (NAVEDTRA 14018)</li> <li>Aviation Maintenance Ratings, Chapter 1 (NAVEDTRA 14022)</li> <li>Navy Quality Deficiency Report Program (SECNAVINST 4855.5)</li> <li>Policy for Managing Lead Maintenance Technology Centers (NAVAIRSINST 4700.22)</li> <li>Naval Aviation Maintenance Program (NAMP). Volume V, Chapter 10 (OPNAVINST 4790.2)</li> <li>All applicable NAVAIR Maintenance Instruction Manuals</li> </ul>

	All applicable activity's instructions and standard operating procedures
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about NAMDRP program and processing of different types of Quality Deficiency Reports, procedures, chain of command, and personnel involved in initiating the reports. You can also expect questions about proper packaging and supply interaction while processing the exhibits. You may also see questions regarding responsibilities of the originator, supply, and the CFA during the process of a Quality Deficiency Report. These questions maybe of a general nature or specific to a type of NAMDRP report.

General AM <i>Skill Area</i>	EMERGENCY RECLAMATION
A <i>skill</i> you are expected to perform from the General Skill Area above:	Manage the Emergency Reclamation Program
Knowledge you should have to perform this skill:	<ul> <li>Fundamentals and concepts of the Emergency Reclamation Program as it applies to both I-level and O-level maintenance activities</li> <li>Reporting procedures of crash damaged aircraft to the proper chain of command</li> <li>Organizing materials, equipment, and personnel required to reclaim crash damaged aircraft</li> <li>Activating the reclamation team for the activity assigned to reclaim the crash damaged aircraft</li> <li>Reviewing, updating, and assuring availability of priority removal list of aircraft components and all instructions required for an emergency reclamation evolution</li> <li>Processing of MAFS and documenting all reclaimed components during the evolution</li> <li>Training requirements of emergency reclamation program</li> <li>Arranging transportation from and to the site of crash damaged aircraft, whether it crashed at an airfield or at sea</li> </ul>
References you should study to gain the knowledge you need to perform this skill:	<ul> <li>Aviation Maintenance Ratings, Chapter 4 (NAVEDTRA 14022)</li> <li>Aircraft Weapons Systems Cleaning and Corrosion Control, Chapter 9 (NAVAIR 01-1A-509)</li> </ul>

<ul> <li>Avionics Cleaning and Corrosion Prevention</li> </ul>
Manual, Chapters 2 and 5
(NAVAIR 16-1-540)

- Naval Aviation Maintenance Program (NAMP), Volume I, Chapter 10 (OPNAVINST 4790.2)
- Naval Aviation Maintenance Program (NAMP), Volume V, Chapter 14 (OPNAVINST 4790.2)
- All applicable NAVAIR Maintenance Instruction Manuals
- All applicable activity's instructions and standard operating procedures

Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:

You can expect questions about the Aircraft Emergency Reclamation Program, its guidelines, procedures, and team concepts. In addition, you may see questions about materials and equipment necessary to perform the task. You can also expect to see questions concerning the chain of command and the organization responsibilities for crash damaged aircraft. These questions maybe of a general nature or specific to a particular type of reclamation action.

#### Part 4

General AM <i>Skill Area</i>	QUALITY ASSURANCE
A <i>skill</i> you are expected to perform from the General Skill Area above:	Review and perform Quality Assurance Audits
Knowledge you should have to perform this skill:	<ul> <li>Requirements of the Quality Assurance (QA) Audit Program</li> <li>Responsibilities under the Quality Assurance Audit Program</li> <li>Identify types of audits</li> <li>Identify programs managed and monitored by the QA Division</li> <li>Characteristics and use of the Computerized Self-Evaluation Checklist (CSEC)</li> <li>Procedures for performing QA audits</li> </ul>
References you should study to gain the knowledge you need to perform this skill:	<ul> <li>Naval Aviation Maintenance Program, Volume I, Chapter 14 (OPNAVINST 4790.2)</li> <li>Naval Aviation Maintenance Program, Volume V, Chapter 8 (OPNAVINST 4790.2)</li> </ul>
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about performing quality assurance audits. These questions will include all aspects of the Quality Assurance Audit Program, program requirements, responsibilities, types of audits, managed and monitored programs, CSEC, and audit procedures.

General AMC Skill Area	CORROSION CONTROL
A <i>skill</i> you are expected to perform from the General Skill Area above:	Perform aircraft corrosion control detection, identification, treatment, prevention, and preservation
Knowledge you should have to perform this skill:	<ul> <li>Qualification requirements for the Corrosion Control Program</li> <li>Selecting materials for specific types of aircraft</li> <li>Detecting, identifying, and treating corrosion</li> <li>Mixing and applying aircraft paints and primers</li> <li>Preventing corrosion and preserving aircraft and equipment</li> <li>Maintaining corrosion control tools and equipment</li> <li>Researching instructions, manuals, and publications pertaining to specific aircraft</li> <li>Researching and complying with hazardous material instructions and safety regulations</li> </ul>
References you should study to gain the knowledge you need to perform this skill:	<ul> <li>Aviation Maintenance Ratings, Chapter 4 (NAVEDTRA 14022)</li> <li>Aviation Structural Mechanic (H&amp;S) 3&amp;2, Chapters 11 and 12 (NAVEDTRA 14018)</li> <li>Aircraft Weapons Systems Cleaning and Corrosion Control (NAVAIR 01-1A-509)</li> <li>Avionics Cleaning and Corrosion Prevention Manual, Chapters 2-4 and 6-10 (NAVAIR 16-1-540)</li> <li>Naval Aviation Maintenance Program (NAMP), Volume V, Chapter 14 (OPNAVINST 4790.2)</li> <li>All applicable NAVAIR Maintenance Instruction Manuals</li> </ul>

	All applicable activity's instructions and standard operating procedures
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about detection, identification, treatment, prevention, and preservation of naval aircraft. You can also expect questions on procedures for mixing and applying paints and primers and maintenance of painting equipment. In addition, you may see question relating to publications, manuals, or instructions for specific guidelines relating to a particular aircraft. These questions maybe of a general nature or specific to a particular type of material, equipment, or aircraft.

General AMC Skill Area	MAINTENANCE ADMINISTRATION
A <i>skill</i> you are expected to perform from the General Skill Area above:	Perform maintenance/production control briefs
Knowledge you should have to perform this skill:	<ul> <li>Responsibilities of maintenance/ production control supervisors</li> <li>Qualification requirements for maintenance/production control supervisor; for example, project priority codes, certify aircraft safe for flight, work load priority, logs and records, etc.</li> <li>Planning and conducting maintenance/production meetings</li> <li>Reviewing of Daily Workload Reports</li> <li>Setting priorities for daily work load</li> <li>Briefing and debriefing of flight crews and maintenance personnel</li> <li>Preparing and reviewing aircraft manifests for mission accuracy</li> </ul>
References you should study to gain the knowledge you need to perform this skill:	<ul> <li>Aviation Maintenance Ratings, Chapters 1, 2, and 5 (NAVEDTRA [14022)</li> <li>Naval Aviation Maintenance Program (NAMP), Volume I, Chapters 7, 8, 11, 12, 15-17 (OPNAVINST 4790.2)</li> <li>Naval Aviation Maintenance Program (NAMP), Volume III, Chapters 1-9 (OPNAVINST 4790.2)</li> <li>Naval Aviation Maintenance Program (NAMP), Volume V, Chapter 10 (OPNAVINST 4790.2)</li> <li>All applicable NAVAIR Maintenance Instruction Manuals</li> <li>All activity's instructions and standard operating procedures</li> </ul>

Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:

You can expect questions about the responsibilities and operations of Production Control and Maintenance. You may also see question regarding aircraft logbooks, discrepancy reports, daily workloads, and schedules of different types of aircraft and support equipment inspections. In addition, you can expect questions about TDs, AFCs, and AFBs documentation and incorporation, along with briefing and debriefing of flight crews and maintenance personnel. These questions maybe of a general nature or specific to a maintenance/production control action or function.

General AMC <i>Skill Area</i>	MAINTENANCE ADMINISTRATION
A <i>skill</i> you are expected to perform from the General Skill Area above:	Prepare and submit Aircraft Status Reports
Knowledge you should have to perform this skill:	<ul> <li>Fundamentals and concepts of Aircraft Status Reporting</li> <li>Reviewing of Aircraft Discrepancy Books (ADBs) and Aircraft Logbooks</li> <li>Preparing and reviewing Aircraft Material Readiness Reports (AMRR)</li> <li>Submitting and routing the daily AMRR via chain of command</li> </ul>
References you should study to gain the knowledge you need to perform this skill:	<ul> <li>Aviation Maintenance Ratings, Chapter 1 (NAVEDTRA 14022)</li> <li>The Naval Aviation Maintenance Program (NAMP), Volume I, Chapters 10, 12, and 13 (OPNAVINST 4790.2)</li> <li>The Naval Aviation Maintenance Program (NAMP), Volume III, Chapter 6 (OPNAVINST 4790.2)</li> <li>All Applicable NAVAIR Maintenance Instruction Manuals</li> <li>All activity's instructions and standard operating procedures</li> </ul>
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the concepts and fundamentals of aircraft status reports, Aircraft Discrepancy Books (ADB), and Aircraft Material Readiness Reports (AMRR). You can also expect question about preparing, reviewing, submitting, and routing of Aircraft Status Reports. These question maybe of a general nature or specific to a type of status report.

General AMC Skill Area	MAINTENANCE ADMINISTRATION
A <i>skill</i> you are expected to perform from the General Skill Area above:	Schedule, coordinate, and document aircraft and support equipment inspections
Knowledge you should have to perform this skill:	<ul> <li>Fundamentals and concepts of aircraft and support equipment inspections as they pertain to the planned maintenance system</li> <li>Know the concepts and operations of the Support Equipment Standardization System (SESS) Program</li> <li>Scheduling, coordinating, and documenting different types of aircraft and support equipment inspections</li> </ul>
References you should study to gain the knowledge you need to perform this skill:	<ul> <li>Aviation Maintenance Ratings, Chapters 1, 4, and 5 (NAVEDTRA 14022)</li> <li>The Naval Aviation Maintenance Program (NAMP), Volume I, Chapters 10, 12, 13, and 16 (OPNAINST 4790.2)</li> <li>The Naval Aviation Maintenance Program (NAMP), Volume III, Chapters 1, 2, 6, and 9 (OPNAVINST 4790.2)</li> <li>All applicable NAVAIR Maintenance Instruction Manuals</li> <li>All activity's instructions and standard operating procedures</li> </ul>
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the fundamentals and concepts of aircraft and support equipment inspection, the Planned Maintenance System, and the Support Equipment Standardization System (SESS) program. In addition, you can expect questions about scheduling, coordinating, and

8	documenting specific inspections. These questions maybe of general nature or specific to a type of aircraft or support equipment inspection.
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General AMC Skill Area	MAINTENANCE ADMINISTRATION
A <i>skill</i> you are expected to perform from the General Skill Area above:	Incorporate and document Technical Directives (TD), Airframes Changes (AFC), and Airframes Bulletins (AFB)
Knowledge you should have to perform this skill:	<ul> <li>Handling of technical directives, airframes changes, and bulletins</li> <li>Processing, routing, and disseminating of technical directives, airframes changes, and bulletins upon receipt</li> <li>Documenting incorporation of technical directives, airframes changes, and bulletins relating to an activity's aircraft, engines, or support equipment</li> <li>Ordering of parts and kits required to incorporate the technical directives, airframes changes, and bulletins</li> <li>Reviewing technical directives, airframes changes, and bulletins for accuracy and applicability to aircraft, engines, and support equipment</li> </ul>
References you should study to gain the knowledge you need to perform this skill:	<ul> <li>Aviation Maintenance Ratings, Chapter 2 (NAVEDTRA 14022)</li> <li>The Naval Aviation Maintenance Program (NAMP), Volume I, Chapters 10, 12, and 13 (OPNAVINST 4790.2)</li> <li>The Naval Aviation Maintenance Program (NAMP), Volume III, Chapters 3, 6, 7, and 9 (OPNAVINST 4790.2)</li> <li>The Naval Aviation Maintenance Program (NAMP), Volume V, Chapter 11 (OPNAVINST 4790.2)</li> <li>All applicable NAVAIR Maintenance Instruction Manuals</li> </ul>

	All applicable activity's instructions and standard operating procedures
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect question on different types of technical directives, airframe changes, and airframes bulletins. You can also expect questions about the handling, responsibility, routing, and incorporation of technical directives, airframe changes, and bulletins. In addition, you may see questions relating to documenting logbook entries and reviewing technical directives, airframe changes, and airframe bulletins for accuracy and applicability. These questions maybe of a general nature or specific to a type of technical directive, airframes change, or airframes bulletin.

General AMC Skill Area	LOGISTICS
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maintain precision measuring equipment
Knowledge you should have to perform this skill:	<ul> <li>Maintaining and managing calibrated equipment using different formats and recall listings under the MEASURE Program</li> <li>Processing of calibrated equipment through different level of maintenance (I-level activity, field-level repair, or depot-level site)</li> <li>Packaging, handling, and shipping of calibrated equipment via supply when doing a "repair and return" work request outside the activity.</li> <li>Understanding the Naval Aviation Metrology and Navy Calibration Program and instructions/manuals that govern PME and calibrated equipment</li> <li>Routing of paper work via chain of command when deviations or extensions are necessary for calibrated equipment</li> </ul>
References you should study to gain the knowledge you need to perform this skill:	<ul> <li>Aviation Maintenance Ratings, Chapter 5 (NAVEDTRA 14022)</li> <li>The Naval Aviation Maintenance Program (NAMP), Volume I, Chapter 10 (OPNAVINST 4790.2)</li> <li>The Naval aviation Maintenance Program (NAMP), Volume V, Chapter 19 (OPNAVINST 4790.2)</li> <li>All applicable NAVAIR Maintenance Instruction Manuals</li> <li>All applicable activity's instructions and standard operating procedures</li> </ul>

Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:

You can expect questions about calibration schedules, program management and induction procedures of calibrated equipment to the maintenance activity, as well as field activity, and rework facility for repairs. You can also expect questions about different management tools (inventory formats and recall listings), deviation and extension requirements of calibrated equipment, and routing for approval from designated authorities. These questions maybe of a general nature or specific to a particular type of precision measuring equipment or process.

General AMC Skill Area	LOGISTICS
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maintain and validate Aircraft Maintenance Material Readiness Lists (AMMRL)
Knowledge you should have to perform this skill:	<ul> <li>Maintaining and validating Aircraft Maintenance Material Readiness Lists (AMMRL) for accuracy</li> <li>Submitting additions and deletions to the AMMRL when necessary</li> <li>Acquiring aircraft support equipment as required via chain of command using the IMRL program</li> <li>Surveying excess, lost, or worn/broken aircraft support equipment</li> <li>Applying the Aircraft Maintenance Material Readiness List (AMMRL) as the governing instruction for Individual Material Readiness List (IMRL), Tailored Outfitting List (TOL), and Calibration Program</li> </ul>
References you should study to gain the knowledge you need to perform this skill:	<ul> <li>Aviation Maintenance Ratings, Chapter 3 (NAVEDTRA 14022)</li> <li>The Naval Aviation Maintenance Program (NAMP), Volume I, Chapters 10, 12, and 15 (OPNAVINST 4790.2)</li> <li>All applicable NAVAIR Maintenance Instruction Manuals</li> <li>All applicable activity's instructions and standard operating procedures</li> </ul>
Exam Expectations. These are subject areas you should know to help you	You can expect questions about maintaining and validating Aircraft Maintenance Materials Readiness List and related programs. You may

correctly:  n ta T s N	also expect questions about program nanagement as it pertains to acquiring, ailoring, and surveying support equipment. These questions maybe of a general nature or pecific to any portion of the Aircraft Maintenance Material Readiness Lists AMMRL) program.
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 $\label{eq:Appendix A} \textbf{References Used in This Advancement Handbook}$ 

Rating	Short Title	Long Title	Chapters	Stocking Point
AM3	NAVEDTRA 14018	Aviation Structural Mechanic (H&S) 3&2	Chapters 1-15	Note 1
	NAVEDTRA 14022	Aviation Maintenance Ratings	Chapter 2-6	Note 1
	NAVEDTRA 12085	Use and Care of Hand Tools and Measuring Tools	Chapters 2, 3, 5, 8, 12, 13, 14, 21, 22, 27, 28, and 31	Note 1
	NAVEDTRA 12014	Blueprint Reading and Sketching	Chapters 1, 2, 3, 4, and 8	Note 1
	NAVAIR 01-1A-1	General Manual for Structural Repair	Chapters 2-12	Note 2
	NAVAIR 01-1A-8	Structural Hardware Manual	Chapters 2-9, and 13	Note 2
	NAVAIR 01-1A-9	Aerospace Metals–General Data and Usage Factor	Chapters 2 and 3	Note 2
	NAVAIR 01-1A-12	Fabrication, Maintenance, and Repair of Plastics	Chapters 2-9	Note 2
	NAVAIR 01-1A-16	Nondestructive Inspection Methods	Chapters 1 and 2	Note 2
	NAVAIR 01-1A-17	Aviation Hydraulics Manual	Chapters 3, 6, 8, and 9	Note 2
	NAVAIR 01-1A-20	Hose and Tube Manual	Chapters 2, 4, 6, 7, and 9	Note 2
	NAVAIR 01-1A-22	Aircraft Radomes and Antenna Covers	Chapters 2-6	Note 2
	NAVAIR 01-1A-34	Aeronautical Equipment Welding	Chapters - All	Note 2

NAVAIR 01-1A-39	Naval Aircraft Battle Damage Repair	Chapter 2	Note 2
NAVAIR 01-1A-503	Maintenance of Aeronautical Anti- Friction Bearings	Chapters 2-7, 10, and 11	Note 2
NAVAIR 01-1A-509	Aircraft Weapons System Cleaning and Corrosion Control Manual	Chapters 1-9, and Appendices A, B, C, and D	Note 2
NAVAIR 00-80T-96	Basic Handling & Safety Manual	Work Package 10	Note 2
NAVAIR 04-10-1	Aircraft Wheels	Chapters 2 and 3	Note 2
NAVAIR 04-10-506	Aircraft Tires and Tubes	Chapters 2-6	Note 2
NAVAIR 15-01-500	Preservation of Naval Aircraft	Chapters 1-4	Note 2
NAVAIR 16-1-540	Avionics Cleaning and Corrosion Prevention/Control	Chapters 2-5	Note 2
NAVAIR 19-70-46	Index and Application Tables for Aircraft Jacks	Chapters 1-5	Note 2
OPNAVINST 5100.23	Navy Occupational Safety and Health (NAVOSH) Program Manual	Chapters 3, 15, and 19	Note 3
OPNAVINST 4790.2	Naval Aviation Maintenance Program (NAMP) Volume I	Chapter 16	Note 4
OPNAVINST 4790.2	Naval Aviation Maintenance Program (NAMP) Volume III	Chapter 8	Note 4
OPNAVINST 4790.2	Naval Aviation Maintenance Program (NAMP) Volume V	Chapters 6 and 16	Note 4
NAVAIR A1- NAOSH-SAF-000/P- 5100	NAVAIROSH Requirements for the Shore Establishment		Note 5

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AM2	NAVEDTRA 14018	Aviation Structural Mechanic (H&S) 3&2	Chapters 1 and 12	Note 1
	NAVEDTRA 14022	Aviation Maintenance Ratings	Chapters 1 and 5	Note 1
	NAVAIR 01-1A-17	Aviation Hydraulics Manual	Chapters 3, 6, 8, and 9	Note 2
	NAVAIR 01-1A-20	Hose and Tube Manual	Chapters 2, 4, 6, 7, and 9	Note 2
	NAVAIR 01-1A-509	Aircraft Weapons System Cleaning and Corrosion Control Manual	Chapters 2-6	Note 2
	OPNAVINST 4790.2	Naval Aviation Maintenance Program (NAMP) Volume I	Chapters 10, 12, and 13	Note 4
	OPNAVINST 4790.2	Naval Aviation Maintenance Program (NAMP) Volume III	Chapters 2, 3, 6, and 7	Note 4
	OPNAVINST 4790.2	Naval Aviation Maintenance Program (NAMP) Volume V	Chapter 19	Note 4
AM1	NAVEDTRA 14018	Aviation Structural Mechanic (H&S) 3&2	Chapters 1, 2, 3, 10, and 14	Note 1
	NAVEDTRA 14022	Aviation Maintenance Ratings	Chapters 1, 4, and 5	Note 1
	NAVEDTRA 12014	Blueprint Reading and Sketching	Chapters 1, 2, 3, 4, and 8	Note 1
	NAVAIR 01-1A-1	General Manual for Structural Repair	Chapters 2, 3, 4, 5, 8, and 9	Note 2
	NAVAIR 01-1A-8	Structural Hardware Manual	Chapters 2, 3, 5, 6, and 7	Note 2
	NAVAIR 01-1A-22	Aircraft Radomes and Antenna Covers	Chapter 6	Note 2
	NAVAIR 01-1A-509	Aircraft Weapons System Cleaning and Corrosion Control Manual	Chapters 2-9, and Appendices A and B	Note 2

	NAVAIR 16-1-540	Avionics Cleaning and Corrosion Prevention/Control	Chapters 2 and 5	Note 2
	OPNAVINST 5100.19	Navy Occupational Safety and Health (NAVOSH) Program Manual for Forces Afloat	Chapters B3, C23, and C24	Note 3
	OPNAVINST 5100.23	Navy Occupational Safety and Health (NAVOSH) Program Manual	Chapters 3, 15, and 19	Note 3
	OPNAVINST 4790.2	Naval Aviation Maintenance Program (NAMP) Volume I	Chapter 10	Note 4
	OPNAVINST 4790.2	Naval Aviation Maintenance Program (NAMP) Volume V	Chapters 10 and 14	Note 4
	SECNAVINST 4855.5	Navy Quality Deficiency Report Program		Note 3
	NAVAIRINST 4700.22	Policy for Managing Lead Maintenance Technology Centers		Note 5
	NAVSUPINST 4030.55	Packaging of Hazardous Materials		Note 5
	NAVSUPINST 4440.128	Storage and Handling of Compressed Gases and Liquids in Cylinders, and of Cylinders		Note 5
AMC	NAVEDTRA 14018	Aviation Structural Mechanic (H&S) 3&2	Chapters 11 and 12	Note 1
	NAVEDTRA 14022	Aviation Maintenance Ratings	Chapters 1-5	Note 1
	NAVAIR 01-1A-509	Aircraft Weapons System Cleaning and Corrosion Control Manual	Chapters 2-4	Note 2
	NAVAIR 16-1-540	Avionics Cleaning and Corrosion Prevention/Control	Chapters 2, 3, 4, 6, 7, 8, 9, and 10	Note 2
	OPNAVINST 4790.2	Naval Aviation Maintenance Program (NAMP) Volume I	Chapters 7, 8, 10, 11, 12, 13, 14, 15, 16, and 17	Note 4

OPNAVINST 4790.2	Naval Aviation Maintenance Program (NAMP) Volume III	Chapters 1-9	Note 4
OPNAVINST 4790.2	Naval Aviation Maintenance Program (NAMP) Volume V	Chapters 8, 10, 11, 14, and 19	Note 4

### **LEGEND:**

**Note 1 -** INTERNET - <a href="http://www.advancement.cnet.navy.mil/">http://www.advancement.cnet.navy.mil/</a>

**Note 2 -** INTERNET - <a href="http://www.natec.navy.mil/">http://www.natec.navy.mil/</a>

**Note 3 -** INTERNET - <a href="http://neds.neds.daps.mil/">http://neds.neds.daps.mil/</a>

**Note 4 -** INTERNET - <a href="http://greenshirt.nalda.navy.mil/">http://greenshirt.nalda.navy.mil/</a>

**Note 5 -** LOCAL - Contact your Command Central Technical Publication Librarian